



**Reid Gardner Generating Station
Title V Air Quality Operating Permit
Environmental Compliance Plan**

Submitted to:

State of Nevada
Division of Environmental Protection
Bureau of Air Pollution Control

February 2007

Introduction

Nevada Power Company (the "Company") is taking a comprehensive approach to assuring ongoing compliance of the Reid Gardner Station (the "Station") with all requirements contained in its Title V Air Quality Operating Permit AP 4911-0897 (the "Permit"). This Plan addresses policy, organizational measures, procedures, automating processes, training, auditing, pollution controls, software and information systems, financial resources and schedule. Implementation of these measures requires expenditures totaling approximately \$86 million from 2006-2009, which will be invested in new pollution controls, and upgrade of compliance systems. Incremental costs of an on-going nature are estimated to exceed \$1 million per year.

This level of financial commitment underscores the Company's goal for the Station to be an exemplary facility in regard to its environmental compliance. To meet that goal the Station must completely fulfill each specific requirement of the Permit at all times, and where it is prudent to do so, go beyond compliance. A similar approach is being taken with respect to all other permit and regulatory requirements to which the Station is subject. Despite the very large expenses this entails, the Company believes it is good business to achieve and maintain a superior compliance record at its facilities. Moreover, to minimize costs over the long run, and maintain a reputation as an excellent company overall, it is important for each of the Company's facilities to keep pace with evolving environmental requirements and the expectations of its regulators, the Nevada Division of Environmental Protection and U.S. Environmental Protection Agency.

The Plan will be updated periodically, and priorities revisited, to assure that the Station is taking the necessary proactive steps to stay ahead of changing needs and regulatory requirements. The suppliers and service providers listed in the Plan may change at the discretion of the Company. The completion of several sections of the Plan is dependent upon the Company obtaining the necessary approvals from the Public Utilities Commission of Nevada and the NDEP.

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1.0 Policy of Nevada Power Company

1.1 Standards of Conduct

The Company's Standards of Business Conduct require its employees to comply with both the letter and spirit of applicable environmental laws and foster an open and constructive relationship with regulatory agencies, environmental groups, employees and citizens with respect to environmental issues. Employees responsible for the construction and operation of Company facilities must ensure that the Company has the necessary environmental permits and clearances for these activities and that the Company complies with the terms and conditions of its permits. These individuals are charged with the responsibility of ensuring that the Company makes all required environmental reports and maintains, at the appropriate location, all required environmental records. All employees should be aware that violation of environmental laws may result in the imposition of significant civil and criminal penalties for the Company as well as for individual employees.

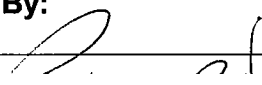
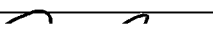
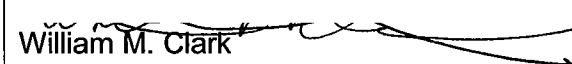

Employees who violate the Standards of Business Conduct are subject to disciplinary action up to and including dismissal.

1.2 Compliance Policy of Reid Gardner Station

In furtherance of, and in addition to the Corporate Policy, the Station will implement a comprehensive plan to enhance the facilities ability to fully complies with all the terms and conditions of its Air Quality Operating Permit, and fosters a relationship with regulatory personnel and other constituencies based on earned mutual respect and trust.

Personnel who believe the Station is in violation must immediately inform the Plant Director and the Plant Environmental Team Leader of such information, and basis for belief that a violation is occurring, so that: a) prompt corrective action can be taken, including reducing or shutting down operation if necessary to assure compliance, and b) the NDEP can be promptly notified if a deviation from a Permit requirement has occurred.

Approved By:

 Robertó R. Denis Senior VP, Generation & Energy Supply	 David Sharp Station Director
 William M. Clark Generation Executive	 Starla Vacy Director, Environmental Services

2.0 Organizational Changes

2.1 Staff at Station Report to Corporate ESD

Additional checks and balances have been established within the NPC's Generation organization. Significantly, the previous in-plant environmental scientist position has been upgraded two levels to a Team Leader, who now reports to the corporate Environmental Services Department ("ESD"), instead of to the Plant Director, as had been the case. The Company has also hired two Environmental Engineer/Scientists who are stationed at the site, and will assist and report to the Team Leader. The in-Plant Team Leader is the on-the-scene, day-to-day monitor of Plant compliance for the Company. The Team Leader's has primary oversight of:

- a) monitoring all plant systems and activities that are subject to, or that influence compliance with Permit requirements;
- b) reporting all deviations, exceedances, equipment upsets, or other non-conformances with applicable operating procedures, to appropriate agency as required by the Permit;
- c) advising and assisting the Plant Director and operations staff in maintaining compliance, including preventive, corrective and mitigation measures as needed to address (b);
- d) maintaining complete, accurate, and accessible records, and
- e) preparing and filing reports, as required by the Permit.

In accordance with the Company's Policy stated in Section 1 above, it is incumbent upon the Team Leader to immediately bring compliance issues to the attention of the Plant Director, the RO (see below), and Corporate ESD, so that the Station can be brought into compliance, and any Permit deviations are promptly reported to the appropriate agency.

Environmental Responsibilities Table

Tasks	Corporate Staff/ESD Responsibilities	Plant/Operations Responsibilities
1. Track new requirements	Timely briefings/alerts to plants & execs concerning new or revised requirements being proposed.	Assimilate and adapt to new requirements, provide input and feedback to ESD on potential impact of new requirements.
2. Monitor compliance deadlines, initiate required actions, and track & report completion of actions needed for compliance	New requirements are entered into tracking system with adequate lead time, triggering specific compliance actions affecting each plant.	ESD in-plant environmental specialist organizes and leads required actions; large scope capital projects placed on separate project management track. Plants sign-off regulatory filings.
3. Negotiate operating permit	Work directly with agencies, and coordinate with consultants, attorneys, plants & execs to achieve workable permit conditions. Form cross-functional team for major activities. ESD takes lead in permit preparation & negotiation; principal interface with agency compliance	Provide permit data, and review of proposed permit requirements. Participate in sessions with agencies as desired. Sign-off on plant's ability to comply with permit.

	inspection personnel.	
4. In-plant environmental compliance support, monitoring & reporting	In-plant environmental specialist coordinates info/data flow between plant and ESD, and assists plant personnel in day-to-day compliance activities, especially monitoring and reporting; supports RO/DR certifications;.	Plant systems operated and maintained in compliance; Provide monitoring data and other required compliance info.
5. Training of plant personnel	Provide plant/permit-specific air, water and waste compliance training to all ops personnel who have a significant role in maintaining compliance.	Support recurrent training to assure responsible ops personnel have knowledge of specific compliance procedures, can identify and head-off potential problems, and seek timely assistance when needed.
6. RO/DR obligations	Provide auditable QC'd documentation, in support of RO/DR's permit compliance certifications and reporting obligations.	Assume DR/RO role, with direct responsibility for, and control of compliance of permitted sources.
7. Compliance audits	Perform independent audits, and track follow-up and close-out of corrective actions; report to execs on status.	Provide information to audit team, and implement corrective actions at the plant
8. Allowances/emission credits	Provide tracking and analysis of allowances/credits needed to support plant compliance. Make filings as required with environmental agencies, after sign-off by plant	Management of allowances/credits to extract maximum value, and preserve operational flexibility; Optimize compliance strategy; manage allowances in conjunction with fuel supplies.

2.2 Personnel Changes

Mr. William M. Clark has been appointed the Company's Generation Executive, responsible for setting policy, and directing the operation of all of Sierra Pacific Resources generating stations.

Mr. David Sharp has been appointed Plant Director, reporting to Mr. Clark.

Mr. Forrest Hawman has been hired as the new Reid Gardner Environmental Team Leader.

The Company has also hired two Environmental Engineer/Scientists, Mr. Michael Rojo and Ms. Christine Poeller, who are stationed at the site, and will assist and report to Mr. Hawman.

Mr. Tony Garcia has been appointed Manager of Coal Generation, Environmental Support, a position that is focused solely on supporting Reid Gardner and North Valmy Station compliance. The new Reid Gardner Team Leader, Mr. Hawman, will report to Mr. Garcia. Additionally, Mr. Christopher Heintz, a senior environmental scientist in the corporate staff, reporting to Mr. Garcia, is also being deployed at the Station on an as needed basis.

2.3 Compliance Resources at the Station

As noted above, two new Environmental Engineer/Scientist positions have been created at the Station to assure that the Team Leader has adequate support. These positions report to the Team Leader.

In addition to the two new environmental specialists at the Station, the Team Leader will be able to call on substantial external resources as needed, both from the corporate staff, as well as outside contractors and consultants. As noted below, the Company has engaged TetraTech to provide full time services of specialized plant compliance experts at the Station on an as needed basis. The TetraTech personnel while at the Station will be under the administrative control of Mr. Garcia, and will function as an integral part of the in-plant compliance team directed by the Team Leader.

2.4 Responsible Official and Designated Representative

Mr. Clark, the RO/DR has full authority to reduce operation, shut down the plant, or take other measures deemed necessary to maintain compliance. This alignment of responsibilities facilitates timely knowledge, intervention and control by the Plant's Responsible Official, of evolving situations at the Plant that could threaten compliance, and further enables timely involvement of ESD corporate staff in diagnosing and solving compliance problems.

3.0 External Compliance Support

A broad array of outside experts has been engaged by the Company to help develop and implement key components of this Plan, and in certain cases, are expected to provide on-going compliance support.

3.1 On-going Operations Support

Highly experienced plant environmental specialists with TetraTech had been providing interim support to the Station until the new Team Leader and specialists were hired. With the new Team Leader and Engineer/Scientist's now in place, Tetra Tech remains under contract with NPC and is fully ready to continue their support of all the duties described in 2.3 above.

3.2 Software and CEMS/COMS Support

Environmental Systems Corporation ("ESC"), a nationwide supplier of CEMS/COMS software systems and services, is performing a number of upgrades to its software at the Station. These enhancements, detailed in Sections 10.2 and 11 below, go hand-in-hand with the reorganization of compliance responsibilities described above.

3.3 Engineering and Project Management

The firm of Lockwood-Greene, a nationally known power plant engineering firm, affiliated with CH2MHill, is conducting conceptual engineering studies for the proposed pollution control projects, and for the ultimate master plan for the Station. In addition, the Company has hired a highly

experienced project manager to oversee all major projects at the Station, foremost being the proposed pollution control projects.

3.4 Legal Support

In addition to in-house legal counsel, the Company has retained the law firm of Parsons, Behle & Latimer to advise the Station on interpretation of the Permit, and review compliance decisions as necessary to help assure proper implementation and interpretation of the Permit requirements by Company personnel.

In a similar vein, William Bumpers, a Clean Air Act expert with the Washington, D.C. law firm of Baker & Botts has provided analysis and advice pertaining to the proposed pollution control projects and New Source Review.

3.5 Support for Permit Studies

A major environmental consulting firm, CH2MHill is engaged in identifying current provisions of the Permit that are based on incorrect data. Appropriate Permit revisions will be pursued (see Section 7).

3.6 Compliance Testing

The Company utilizes third party contractors to perform all necessary on-site testing, and to prepare the test reports to be filed with the NDEP and US EPA pursuant to Permit requirements.

3.7 Compliance Procedures and Training

As noted under paragraphs 4 and 13 below, General Physics Corporation ("GP"), a large company known internationally for its expertise in preparing plant operating procedures and conducting in-plant training, has been retained to document, and as needed improve upon all procedures followed by Station personnel, relating to compliance with the Title V Air Quality Operating Permit. GP will assist Company environmental personnel in preparing and presenting Title V Air Quality Operating permit compliance training to Station personnel.

3.8 Compliance Audits

Compliance audits will be performed in accordance with paragraph 14 of this plan.

4.0 Standard Environmental Procedures

General Physics Corporation ("GP"), a large company known internationally for its expertise in preparing plant operating procedures and conducting in-plant training, has been retained to document, and as needed improve upon all procedures followed by Station personnel relating to

compliance with the Title V Air Quality Operating Permit. This effort was initiated in October 2005 and was completed on October 31, 2006. (see Section 15 - Master Schedule below). Procedures related to the NOAVs, were given priority in the GP work program. Particular emphasis was placed on structuring the procedures so that completion of Permit-required activities would be adequately documented to facilitate compliance audits.

GP's work scope addresses all 362 Permit clauses that contain specific compliance requirements in the Title V Air Quality Operating Permit. The completed Standard Environmental Procedures ("SEPs") include all four (4) generating units and associated support facilities.

Each SEP (see Sample – Appendix A) will typically contain the following sections:

- Summary: summary of the requirements of the Permit.
- Air Pollution Control Equipment: a list or description of the air pollution equipment that is required under the conditions of the Permit.
- Emissions Limits: a list of the emissions parameter, emissions unit, Permit limit, and regulatory citations associated with each system.
- Operating and Maintenance Parameters: operating limits and maintenance requirements as set forth in the Permit.
- Monitoring: includes all analytical requirements and references to sampling and analysis protocols.
- Recordkeeping: preparation, contents, and submission requirements for reporting to NDEP and EPA Region IX.
- References: Permit clauses, regulations, any vendor manuals, P&Ids, etc. used to develop the SEPs.

The SEPs fall into five (5) major groupings that follow the principal sections of the Permit:

4.1 Testing Procedures

Testing procedures will be conducted in accordance with the Title V Air Quality Operating Procedure and all applicable standards, rules and regulations. All the testing results are reported to the appropriate agencies as required. As noted above, the Company is utilizing outside entities to audit its emissions monitoring equipment and processes, and to assist in preparing written procedures to ensure compliance with Title V Air Quality Operating Permit requirements.

4.2 Monitoring Procedures

Station operations personnel monitor the operating conditions of their respective equipment by utilizing the Distributive Control System (DCS), computers, local gauges and indicators, speed control devices, valves, etc. An important part of this monitoring equipment is the continuous emissions monitoring system, or CEMS. The CEMS data is constantly displayed real time to the operators in each control room. This allows them to act very quickly. The plant Environmental Scientist monitors this data as well. Recently, this equipment was upgraded with a new computer and two new monitors, dedicated solely to monitoring of CEMS data. Additionally, as described in Sections 9, 10, and 11, the Station is now in the process of proving out a new monitoring software program which will enhance the Company's capabilities for on-site and off-site real-time monitoring of environmental compliance parameters, as well as facilitating the reporting obligations contained in the Station's Title V Air Quality Operating Permit.

4.3 Recordkeeping Procedures

Information related to Title V Air Quality Operating Permit requirements retained in hardcopy is available in the Reid Gardner Administration Building. The CEMS information is stored electronically and then downloaded periodically. Pertinent Title V Air Quality Operating Permit related CEMS data is placed in the Reid Gardner administration-building library as a hardcopy. Where applicable, station operating logs are utilized in recording data not found in CEMS. The station management is providing instruction and training to operating personnel designed to improve quality of the Title V Air Quality Operating Permit compliance documentation. Informational meetings have been conducted plant wide with employees to insure their understanding of the importance of environmental compliance documentation. Responsibilities for environmental record keeping and storage have been assigned. Finally, the Company has installed a PI (Plant Information) software system. This program allows real-time monitoring and trending, and provides recordkeeping functions. To provide a check and balance to the entire process, the Environmental Team Lead assigned to the Reid Gardner Station reviews our record-keeping practice on a regular basis.

4.4 Excess Emission Reporting Procedures

Plant operations as well as the plant environmental personnel accomplish environmental reporting. The required CEMS data for all units is reported to the EPA and Nevada Department of Environmental Protection on a quarterly basis. Excess emissions are reported verbally to the NDEP within 24 hours of the event. This report is then followed up with a written Excess Emission and Deviation Report to the NDEP within 15 days. The Station has improved these reports, primarily by providing more detail and quality assurance. Station management utilizes these reports as a tool as well, serving as an indicator that certain processes or methods should be changed. Additionally, the need for accurate and concise communication between all entities involved in gathering and reporting information to NDEP and EPA has been recognized, and procedures are being reviewed to improve that process. As described in Section 9 below, the Enviance environmental management program will help insure that all of our environmental reporting requirements are met, as well as provide a documentation library.

4.5 Plant Operations

Reid Gardner Station operations are conducted with environmental responsibilities in mind, the goal being to remain in compliance at all times. The Station has been successful in maintaining its SO₂ and NO_x emissions below limits. Continuing efforts are being made to improve upon control of opacity. A number of new operating procedures and changes to systems (see Section 6 below) have been, and are being evaluated to reduce the likelihood of emission exceedences. Operating procedures that influence emissions are being periodically reviewed to provide the best possible emissions control. Environmental compliance is frequently emphasized with plant operators. These continuing improvement measures have shown excellent results.

In accordance with the Policy stated in Section 1 above, environmental compliance is considered by the Station's operators to be a necessary precondition to production. Operators have been instructed to reduce unit load or take a unit off line if they are unable to operate within environmental guidelines.

The importance of reporting and dealing with problems that have a potential to affect environmental compliance are being given a top priority and dealt with quickly.

5.0 Approval of Compliance Documents

5.1 Preparation of Permit Applications

Information included in any application for amendment or renewal of the Title V Air Quality Operating Permit will be subject to review and sign-off by both Station and corporate staff, by those individuals responsible for inputs to the application, as well as by the Plant Director, before being submitted for certification by the Company's Responsible Official. It is the responsibility of the corporate staff to assure that all technical inputs to these documents are: 1) generated by qualified personnel and/or qualified third-party consultants, 2) checked for accuracy, 3) all data sources and calculation methods are documented, and 4) in the case of substantive requirements, that such requirements are practicable from a compliance standpoint, and deemed to be acceptable by the Plant Director. A record of the review process will be created to enable any potential future changes to be more readily evaluated.

5.2 Preparation of Compliance Documents

Once the steps in Section 5.1 above have been completed, applications are submitted for Certification by the Station's RO. The RO is briefed by appropriate Company personnel who possess knowledge of, and were responsible for preparation of the documents. Similarly, semi-annual, and annual Permit Certifications, and all compliance report submittals to NDEP and EPA are required to undergo review and sign-off by preparers, and reviewers, up to and including the Plant Director.

6.0 Plant Systems and Automation

6.1 Coal Sampling System

Automated coal sampling systems have been installed at Reid Gardner station on April 22, 2005. Computer Maintenance Management System generated work orders have been implemented for inspections and assigned to maintenance crews for compliance with Title V Air Quality Operating Permit required maintenance as per the manufactures recommendations. Samplers have been operational since the installation date.

6.2 Smart Soot blowers

New Clyde Bergmann soot blowers have been installed on Units 1, 2, 3 and 4. The programmable soot blowers perform variable sweeping and extend-retract ability for the purpose of controlled soot

blowing and minimal disturbance/upset of opacity. This is accomplished with a computer driven variable frequency drive. The blowers use dedicated controls to accomplish this operation.

6.3 PI System

The PI system is currently installed and operational. The system is archiving selected data from Units 1-4 and the CEMS central computer. This is accomplished by an individual PI API (Application Program Interface) for each respective unit.

6.4 Time delays to prevent burner tripping

The logic changes to eliminate intermittent coal burner tripping due to open status signal failure has been implemented. These changes have been reviewed and approved by Coen (burner management controls authority) for NFPA compliance. The changes consist of a three second time delay in the burner valve logic. This was implemented by using a three second off delay time in the COAL BURNER ON logic (coal burner logic) and a three second time on delay in the COAL BURNER VALVE NOT OPEN trip logic (coal burner valve logic). These changes were completed in August 2005 and have reduced the frequency of the burners dropping out of service.

6.5 Pulverizer level controls

Transducers, associated sound probes and sonic re-transmitters were installed on Units 1, 2 and 3 during 2006 Outages in an effort to minimize combustion upsets due to mill level control problems.

The effectiveness of these new level controls are still under investigation.

6.6 Sootblower pressure, frequency and sequence

The pendant section soot blowers, IK 1-4 are blown more frequently instead of the 8 hour frequency previously used and they are designed to be blown at lower pressure. The smart sootblower system should further reduce this frequency. All other soot blowers have been adjusted to blow at lower pressure to cause the least possible opacity disturbances.

6.7 Modified venturi pressure and recycle flow rates

Scrubber venturi pressure differentials are operated to control opacity within established limits. Venturi recycle flow rates are operated as close to maximum as possible to obtain the highest liquid to gas ratio (L/G) in order to minimize opacity.

6.8 Start-up and shut-down procedures

Shift supervisors have instructed control operators that during start-up, prior to oil igniter light off, scrubbers are to be placed in service. This provides for limited opacity reduction while on oil fires due to the miscibility of oil-soot in water however, it is deemed the prudent operating practice.

The written startup and shutdown procedures were modified to reflect these operational changes and the new procedures are now in effect.

7.0 Correction of Title V Operating Permit

7.1 Heat Input Corrections

Subsequent to commissioning of the generating units at Reid Gardner Station, the company installed NO_x controls on Units 1-3, and SO₂ scrubbers on Units 1 and 2 (Unit 3 has had a scrubber since commissioning). These new pollution controls added a new parasitic load, which increased the heat inputs required for the generation of each net megawatt-hour of electrical output. As a result, following installation of this new equipment, the original heat rates for units 1-3 are no longer accurate. The incorrect heat rates were not identified and corrected in the Station's Title V Air Quality Operating Permit application submitted to NDEP back in July 1999.

In addition to the effect of the parasitic loads from pollution control retrofits, in 2004 the Station's new Title V Operating Permit instituted a new methodology for calculating the heat inputs to each of the units. The new methodology required installation and calibration of a coal mass measurement device and continuous data collection system to measure and record the quantity of coal combusted. This data and the measured coal heating values are used to determine the hourly BTU heat input values. The combined effect of the parasitic loads and the change in methodology for heat rate calculations led to a decision by the Company to reduced Units 1-4 by approximately 50 megawatts in order to assure that the Station operates within the permitted heat input limits, until the Title V Air Quality Operating Permit is corrected to reflect current operating capabilities with consideration of the past pollution control retrofits and new methodology for calculating the heat input.

The Company has retained the services of CH2MHill to evaluate the historical operations of the units, accounting for the energy lost due to parasitic loads, and establish the actual maximum heat input capability of each unit at 100 percent operating pressure as is standard in the industry. Operating each unit at the corrected maximum heat input capability would for the most part restore the megawatt capacity lost through reduction.

7.2 Throughput Corrections

The current Title V Operating Permit also contains incorrect throughput numbers based on incorrect data presented in the Company's July 1999 application, carried-over from original engineering estimates. The incorrect throughput numbers are primarily related to batch type processes such as fly ash input and output, soda ash offloading, lime offloading and coal conveying systems to name a few. Such systems do not lend themselves to application of short-term hourly rates. In addition, the Title V Operating Permit includes equipment associated with incorrect plant emissions systems.

CH2MHill is also assessing Station operation and equipment manufacturers' specifications to ascertain the correct throughputs. This effort will include the entire Reid Gardner operating system. Accordingly, the Company has requested correction of the erroneous throughput numbers identified

through that assessment. The Station is currently prepared to initiate this effort with the NDEP and proposes to move forward as quickly as possible correct the throughput numbers.

8.0 Pollution Control Equipment

8.1 Unit 1

Unit 1 is a 1965 Foster Wheeler Carolina type, natural circulation, wet bottom, eight-burner front-fired, pulverized coal, positive draft steam generator.

Existing Pollution Controls:

- NO_x Controls: 1998 Foster Wheeler staged-air split-flame tip low NO_x burner with 1998 two-port front-wall staged over-fired air.
- SO₂ Controls: 1974 Combustion Engineering Associates variable dual throat wet venturi scrubber in combination with Combustion Engineering Associates separator with single flooded perforated plate tray utilizing sodium carbonate as the absorbent.
- Particulate/Opacity Control: Primary control system - 1965 Research-Cottrell Multi-Clone mechanical dust collector. Secondary control system - Wet venturi scrubber.

New Particulate/Opacity Controls (also refer to Pollution Control Projects Schedule):

- Natural gas igniters – A new pipeline, approximately two miles long has been constructed to provide pipeline gas to the Station, and natural gas igniters will be installed on Unit 1. This project will enable Unit 1 to use natural gas instead of diesel oil during start-up and for flame stabilization. This project, in combination with the new baghouse, will substantially reduce opacity exceedences during start-up.
- Baghouse – A new state-of-the-art fabric filter dust collection system (“baghouse”) will be installed on Unit 1. This equipment is being designed to be removable and reusable so that it can be connected to new boilers in a repowered plant that would meet BACT requirements.

8.2 Unit 2

Unit 2 is a 1968 Foster Wheeler Carolina type, natural circulation, wet bottom, eight-burner front-fired, pulverized coal, positive draft steam generator.

Existing Pollution Controls:

- NO_x Controls: 1998 Foster Wheeler staged-air split-flame tip low NO_x burner with 1998 two-port front-wall staged over-fire air.

- SO₂ Controls: 1974 Combustion Engineering Associates variable dual throat wet venturi scrubber in combination with Combustion Engineering Associates separator with single flooded perforated plate tray utilizing sodium carbonate as the absorbent.
- Particulate/Opacity Control: Primary control system - 1965 Research-Cottrell Multi-Clone mechanical dust collector. Secondary control system - Wet venturi scrubber.

New Particulate/Opacity Controls (also refer to Pollution Control Projects Schedule):

- Natural gas igniters – A new pipeline, approximately two miles long has been constructed to provide pipeline gas to the Station, and natural gas igniters will be installed on Unit 2. This project will enable Unit 2 to use natural gas instead of diesel oil during start-up and for flame stabilization. This project, in combination with the new baghouse, will substantially reduce opacity exceedences during start-up.
- Baghouse – A new state-of-the-art fabric filter dust collection system (“baghouse”) will be installed on Unit 2. This equipment is being designed to be removable and reusable so that it can be connected to new boilers in a repowered plant that would meet BACT requirements.

8.3 Unit 3

Unit 3 is a 1976 Foster Wheeler Carolina type, natural circulation, wet bottom, eight-burner, front-fired, pulverized coal, balanced draft steam generator.

Existing Pollution Controls:

- NO_x Controls: 1996 Foster Wheeler staged-air split-flame tip low NO_x burner with 1996 two-port front-wall staged over-fire air.
- SO₂ Controls: 1976 Combustion Engineering Associates variable dual throat wet venturi scrubber in combination with Combustion Engineering Associates separator with single flooded perforated plate tray utilizing sodium carbonate as the absorbent.
- Particulate/Opacity Control: Primary control system - 1976 Research-Cottrell Multi-Clone mechanical dust collector. Secondary control system - Wet venturi scrubber.

New Particulate/Opacity Controls (also refer to Pollution Control Projects Schedule):

- Natural gas igniters – A new pipeline, approximately two miles long has been constructed to provide pipeline gas to the Station, and natural gas igniters will be installed on Unit 3. This project will enable Unit 3 to use natural gas instead of diesel oil during start-up and for flame stabilization. This project, in combination with the new baghouse, will substantially reduce opacity exceedences during start-up.
- Baghouse – A new state-of-the-art fabric filter dust collection system (“baghouse”) will be installed on Unit 3. This equipment is being designed to be removable and reusable so that it can be connected to new boilers in a repowered plant that would meet BACT requirements.

8.4 Unit 4

Unit 4 is a 1983 Foster Wheeler Carolina type, natural circulation, wet bottom, sixteen-burner front-fired pulverized coal, negative draft, steam generator.

Existing Pollution Controls:

- NO_x Controls: 1983 Foster Wheeler staged-air split-flame tip low NO_x burner with 1983 four-port front-wall staged over fire air.
- SO₂ Controls: 1983 Thyssen\Combustion Engineering Associates single bank Spray Tower in combination with single flooded perforated plate tray utilizing sodium carbonate as the absorbent.
- Particulate/Opacity Control: Primary control system - 1983 vintage Flakt sixteen-compartment reverse air bag filter. Secondary control system - 1983 Thyssen\Combustion Engineering Associates single bank Spray Tower.

New Particulate/Opacity and NO_x Controls (also refer to Pollution Control Projects Schedule):

- Natural gas igniters – A new pipeline, approximately two miles long has been constructed to provide pipeline gas to the Station, and natural gas igniters will be installed on Unit 4. This project will enable Unit 4 to use natural gas instead of diesel oil during start-up and for flame stabilization. This project, in combination with the new baghouse, will substantially reduce opacity exceedences during start-up.
- Rotating Opposed-Fire Air (ROFA) System – A new combustion NO_x control system will be installed on Unit 4 to reduce NO_x emissions. The vendor selected for this project is Mobotec, Inc.

9.0 New Software Capabilities

9.1 Compliance Task Management System

The Company has entered into a contractual agreement with Enviance, Inc. to develop an Environmental Management Information System (EMIS) for Reid Gardner and its other generating stations. Enviance is a web-based database and tasking program (management program) that is used to collect data and evaluate it against a predefined set of parameters. It can also produce a set of tasks associated with the data and/or a calendar based requirement.

The Enviance system is currently being used to evaluate the CEMS and COM data based on operating and emission limits, and produces predefined tasks associated with the data as well as requirements contained within the Title V Operating Permit.

When tasks are identified by Enviance, email notifications are sent out to the responsible person to fulfill the task. The responsible person is then required to fulfill the task within the prescribed time frame. If the responsible person does not complete the task within the prescribed time frame, an additional email is sent to the next level of responsibility. The email notifications continue to escalate to the next level of authority until the task is completed.

An example use of Enviance would be to evaluate and report COMS data. If an exceedance has occurred then an email is sent to the environmental staff notifying them of the condition, the time frames to report the exceedance, and who to report the exceedance to. If the responsible person does not respond to Enviance within a prescribed time frame then an additional email notification is sent to the next level of authority and so on, until the item is completed within the prescribed time frame. Should the item be completed, but not within the prescribed time frame, the system notes that a condition of the permit was not met

The Enviance system will allow the Station Environmental Scientists to generate daily unit averages, contemporaneous logs, Title V Air Quality Operating Permit compliance and deviation reports, and groundwater discharge monitoring reports as needed. The software also includes closed-loop tracking for audits, incidents, exceedences, spills, and inspections and all tasks associated with those events from follow-up through resolution.

The Company uses Enviance as a management tool. Station and corporate personnel up to the Responsible Official are able to check facility compliance and see upcoming compliance related tasks at any time. Enviance greatly facilitates proactive monitoring and management of the Station's compliance obligations.

10.0 Monitoring System Enhancements

10.1 CEMS/COMS/DAHS

The Data Acquisition and Handling System (DAHS) was upgraded so that the Station can use the system to track and record unit operating scenarios, and generate reports required by the Title V Air Quality Operating Permit.

Periodic reviews, as necessary, are conducted on various levels of the system. On the first level of review each parameter is being evaluated to ensure that it has been set up to meet the applicable Part 60 and/or Part 75 data validity requirements. A second level of review includes verification of each calculated parameters formulas. A third level of review is to scrutinize each report to verify that the data being outputted is correct. A forth level of review includes identification of software "bugs" that may exist and reporting to the vendor for correction. The last level of review is repeating the first four levels of review for completeness and accuracy/precision.

Examples of some items improved upon thus far are:

- Implementation of a custom report that specifically identifies which scenario the unit is operating under;
- Implementation of a custom report that identifies and counts excess 1 minute opacity exceedences in an hour;

- Use of the Part 60 Monitoring Performance Summary Report generated by the CEMS. This report identifies the hours of excess emissions and CEMS downtime as well as the percentage of operating time based causes;
- Use of the CEMS generated Downtime Duration Report. This report identifies start and end times as well as reasons for monitor downtime; and
- Use of the CEMS generated Out-of-Control report. This report identifies dates, times and reason codes for out-of-control periods.

Additional items that have been identified to further improve the system and accuracy of the data are identified in Section 10.2 below.

10.2 ESC Software System Enhancements

As described in the table below, Environmental Systems Corporations (ESC) is in the process of making a number of additions and changes to its software in use at the Station that should improve the reliability and accuracy of compliance data recorded and reported to NDEP.

Status	Improvement	Action
Complete	Heat Input Equations - calculation to account for partial hours	The calculation was revised so that the hourly calculation apportions the heat input based on coal and oil operating time.
Complete	Operating Scenario Report	A custom report was configured, in conjunction with a script, to denote and report the operating scenario in text.
Complete	Set up default calibration reason code for opacity	Select a reason code to enter in the site/parameter configuration editor to automatically code calibration data.
Complete	Change Round precision for S#/MM	Make round precision (4) consistent among units, allowing adequate values to be calculated.
Complete	Set 'F' Flags for Opacity based on OPACON not UNITON	Changes boiler off-line pattern to correspond to OPACON. OPACON channel outs a digital signal to be used for this flagging.
Complete	Remove 'W' Flag from Opacity Data	Remove 'W' flag from the opacity channel in both the polling computer and logger configuration.
Complete	Track Opacity Exceedances>3m/hr	Custom report counting number of opacity exceedances in an hour and recording max opacity value during the hour.
Complete	Reorder tasks in task scheduler	Reordered tasks to automatically calculate S#/HR.
Complete	Separate Part 60 O2 parameter for SO2#/MM equation	Validation is now consistent.
Complete	Determine start/end of soot blowing event and configure flagging	Supply appropriate signals to the Unit 1-3 data logger to automatically identify and code the start/end of a soot blowing event.
In-	Configure Full Scale Range	Configure the polling computer and logger to implement

progress	Exceedances	a floor limit and floor value on appropriate channels, as well as set up a custom menu entry to enable running the full scale range exceedance utility.
Complete	Heat Input Equations - validation criteria particularly for partial operating hours	Set the validation on this channel according to the Da requirements.

11.0 Surveillance of Emissions Data

11.1 Web-View Emissions Tracking & Analysis

With the complexity and volume of data generated for Title V Air Quality Operating Permit compliance, Nevada Power Company (NPC) has found it increasingly important to be able to monitor operating and compliance parameters on a real time basis from anywhere there is computer and inter-net access.

NPC has teamed up with its CEMS and COMS software vendor, ESC, to evaluate and implement a service that meets those needs. This relatively new ESC product, Web-View, meets the requirement (see Appendix C for ESC e-brochure).

Web-View provides a read-only user interface to the data acquisition system (DAS) menu. Web-View can be custom configured with scalable content to evaluate the CEMS and COMS data on a continual basis without compromising the security of the system.

Web-View provides a “portal” to the database and reports offered in the DAS. Typical menu items include data average displays with validation flags, real-time and historical graphs and charts, pie charts for multi-site/fleet evaluation, standard calibration and average text reports, and CEMS alarm notification with reason code / action code interface.

NPC's use of Web-View will provide an additional level of communication and allow a greater array of personnel, from multiple locations, to access the CEMS/COMS data for Unit status and compliance with boiler operating permit limits.

It should be noted that though the data will be presented as real time, it is not quality assured. The data will conduct a quality assurance check once daily.

12.0 Surveillance of Ambient Air Quality

12.1 Ambient Air Quality Network Data Mapping

The Station has been maintaining an operational ambient monitoring network in compliance with the Federal and State Air Quality PSD Permit to Construct (#NV-79-03) since June 1981. The RG ambient network was originally comprised of three (3) monitoring stations (Site-1 BMT, Site-2 RAQ

and Site-3 GAQ) located outside the Station's property boundaries. The original network parameters included sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter, wind speed, wind direction and ambient temperature all being measured at one or more of the three sites.

Since 1990 the Station's ambient network has expanded by three additional sites (Site-4 PAQ, Site-5 RMS and Site-10 PMS). Another parameter, hydrogen sulfide, is measured at these three sites. Site-4 is located near the Station's West Gate or Main Entrance. Site-5 is located at the Community Center of the Moapa Band of Piutes Indian Reservation, west of the Station. Site-10 is located (on-site) on the shoreline of our 4C evaporation ponds near the NPC property line and Moapa Band of Piutes Indian Reservation. These additional sites complete a "six station ambient monitoring circle" that continuously provides a record of the ambient concentrations of specified pollutants in the vicinity of the Station's generation process.

Throughout the years our monitoring parameters have been expanded to include parameters beyond those required. Site-1 is the location of our 100-meter tower and monitors wind speed (vertical and horizontal), wind direction and temperature at three levels (100-m, 50-m and 10-m). Temperature, relative humidity, barometric pressure, solar radiation and precipitation are all monitored at the ground (2-m) level. All of our instrumentation (pollutant, meteorological and particulate) is state-of-the-art to provide a true and accurate environmental assessment.

Our monitoring goal is to provide accurate air quality and meteorological data to insure the Station maintains environmental compliance within allowable limits. At the same time our network is designed to provide data acceptable for modeling that will be required for modifications or expansion of the plant process. This means all of our sites (required or not) will continue to maintain compliance with NDEP's ambient monitoring guidelines.

The Company maintains the ambient air quality monitoring program described above, with assistance from the Environmental Monitoring Company (EMC) which provides the data handling hardware and software for both data acquisition and data report preparation throughout our network.

EMC is a leading manufacturer of ambient air quality and data management and data handling systems. EMC offers a wide range of data acquisition system products. The primary products EMC has provided our program are Station Manager data loggers and EMC System Manager data management systems.

EMC also develops other data acquisition products including the EMC AIRNow Mapping Module that can publish data to the internet. The capability to access the Reid Gardner AAQ network data on a real-time basis can be provided to users through web access. AIRNow is capable of giving users a dynamic, spatially oriented view of all the air quality data being measured at each of the Company's five sites surrounding the station (excludes Site 10). All that is needed to gain access is for users to log-onto the web site with a pre-approved password. They can then click on each individual site shown on the area map, to view charts of the hourly data for each of the parameters being recorded at the site. Wind rose information is also available, to complement the pollutant concentration data that is graphically displayed. The capability provides a ready and convenient means of performing surveillance of the ambient air surrounding the Station. See Appendix D, for a sample screen print-out.

13.0 Compliance Training

As noted above, General Physics Corporation (“GP”), a large company known internationally for its expertise in developing specialized web-based training courses will be considered for assisting the company in preparing and presenting Title V Air Quality Operating Permit compliance training to Station personnel.

It is anticipated that the web-based training course would utilize GP’s training delivery methods and templates, but would be tailored to the plant-specific and Permit-specific Title V compliance requirements. Web-based delivery of course material and tests could facilitate evaluation of the effectiveness of the training, and administration to assure that employees whose job function affects compliance receive timely instructions, and periodic refresher updates.

13.1 CEMS and COMS Training

The Company has provided compliance training to the Instrument Technicians and other maintenance personnel responsible for the Station’s CEMS and COMS equipment. In the past, ESC the system vendor, and RMB Consulting & Research, Inc., a firm that specializes in CEMS/COMS, have conducted the sessions. Annual refresher training will be included in the GP training program.

13.2 MRR Procedures Training

Station personnel who provide inputs to, or otherwise take part in meeting the monitoring, record-keeping and reporting obligations of the Permit, will be formally trained against the procedures prepared by GP.

13.3 Operator Training

Operators will receive formal training against procedures that detail processes for operating and maintaining plant equipment to comply with the emissions limits and other compliance parameters contained in the Title V Air Quality Operating Permit.

14.0 Compliance Auditing

14.1 Title V Air Quality Operating Permit Audit Plan

An environmental management system includes periodic, systematic, objective and documented audits as an integral component of a comprehensive system of controls, checks and balances to improve current compliance and assure future compliance with the Station Title V Air Quality Operating Permit. Compliance auditing by experienced auditors, who are not a part of the Station staff, will be an important tool to assist the Company in evaluating progress toward the Station’s compliance goal stated in the Introduction to this Compliance Plan.

The audits called for within this Title V Air Quality Operating Permit Audit Plan (Plan) will be conducted in accordance with industry standards and accepted protocols for independent environmental compliance audits so that the Company is assured that it is obtaining accurate, applicable, and thorough assessments of the Station's compliance performance with respect to Title V Air Quality Operating Permit limits/conditions, state, and federal regulations for the specified audit timeframe. In addition to identifying non-compliance items and/or deficiencies, the audits will also promptly generate the necessary corrective actions, and produce recommendations for improvement geared toward preventing recurrence of problems in the future.

The Company has developed an internal environmental audit policy/program, assigning the Company's Environmental Services Department (ESD) to oversee and implement the program, with assistance as needed. This Department has been delegated authority for assuring that all non-compliance situations are identified and concurrently reported to Corporate and Station management, immediately after which corrective measures/improvements are to be determined and scheduled for corrective/preventive action. The completion status of all prioritized corrective actions will be tracked, and will be properly documented as each item is performed and closed-out. Additionally, the Company's Legal Department and outside counsel (see Section 3.3 above) is charged with assuring that any legal interpretations incorporated in the audits are valid, and for advising the Company and Station management concerning corrective actions as needed.

To comply with this Plan, a sequence of four Title V Compliance Audits will be performed. These audits, four of which will be conducted by third-party auditors, will form a baseline for future audits, in addition to providing valuable information to the Company and the Station concerning areas where corrections are immediately necessary, and where improvement may be needed. Each one of the four audits will focus only on one of the following critical aspects of the Title V Operating Permit and the associated state and federal regulations:

- 1) Monitoring, reporting, and record-keeping,
- 2) CEMS/COMS operation, maintenance and software,
- 3) Emission exceedences, and
- 4) Overall environmental compliance management (includes procedures, training, organization, and benchmarking against other similar facilities).

Beyond the completion of these four audits the frequency of compliance audits will depend upon the nature of the findings and corrective/preventive actions that are generated from the four baseline compliance audits. After which, internal auditors will begin auditing for Title V Operating Permit compliance, and will continue on an annual cycle, unless audit results indicate a different frequency would be more efficacious or that it would be prudent to conduct another third-party audit.

14.2 Selection of Qualified Independent Auditors

To determine the best environmental consulting firm to perform the third-party Title V Air Quality Operating Permit Compliance Audits, a Request for Proposal (RFP) was prepared and sent out to five different well known environmental consulting firms familiar with the industry. This RFP described the intended scope, deliverables, and schedule of the audits, and requested quotes for performing the audits to the standards outlined by the Plan. The proposals have been received and will be evaluated and selected by the Plant Environmental Supervisor and the Corporate Environmental Manager.

After the award of the contract, ESD will oversee and manage the audits, including scheduling the various audits, providing pertinent plant information to the consultant, reviewing the checklist, being

available on-site during the audits, reviewing and commenting on the draft and final Title V Air Quality Operating Permit Audit Reports, assisting with the Corrective Action Plans, and ensuring the work is performed within scope and budget. The Legal Department and outside counsel will be available and provide guidance as needed.

14.3 Monitoring, Reporting, and Recordkeeping Audits

To perform the Title V Air Quality Operating Permit Monitoring, Reporting, and Recordkeeping (MRR) Compliance Audit, the permit conditions/limits and regulatory requirements for MRR will be identified, and listed in the MMR audit checklists. Each Station document will be checked against the checklist to ensure existence and completeness. The information/documents to be evaluated includes, but are not limited to; Quarterly Excess Emission Reports, Quarterly Emission Data Reports, Semi-Annual and Annual Compliance Certification Reports, Performance Source Testing Reports, agency notifications, various operations logs, emission inventories, fuel sulfur content certifications, etc. All information at the Station, from the files and computers, will be reviewed to determine compliance status, ease of availability, and potential deficiencies. Station personnel will also be interviewed to determine if all requirements were performed and to assess if staff is knowledgeable of the document and its location.

14.4 CEMS/COMS Audits

The CEMS/COMS Audit will evaluate the proper performance and specific components of the CEMS and COMS. The findings and comments will be recorded in the CEMS/COMS audit checklists. This includes, but is not limited to determining; accurate calculation and reporting of the pollutants, using proper units (ton/yr, lb/hr, ppmvd, etc.), proper data record, accurate flagging data, proper use of rolling averages, proper use of averaging periods, determining CEMS monitor availability, checking fuel throughput and heat input, etc. In addition, the CEMS Monitoring Plan, QA/QC Manual, O&M Manual, RATA Reports, and Linearity Reports will be reviewed for accuracy and completeness, and consistency with the parameters programmed in the CEMS and COMS.

14.5 Emissions Exceedance Audits

Comparing the emissions values from the previous period with the permit limits will perform the Emissions Exceedance Audit. The pertinent information will be listed in the checklists. The period data to be evaluated will be obtained from the CEMS/COMS, calculated using emission factors, results received from source tests, or data acquired from the initial performance testing, as appropriate. The Auditors will indicate any deviations from compliance, and determine the extent and frequency of the exceedances, as well as suggest corrective actions for implementation.

14.6 Overall Environmental Management Audits

The Overall Environmental Compliance Management Audit will assess the environmental procedures and environmental knowledge/understanding at the Station. Also, the audit will assess the Station's understanding of plant operation parameters/restrictions with respect to the Title V Air Quality Operating Permit. Specific checklists will be prepared and used in this audit. This audit will include, but not be limited to assessing; environmental training, knowledge of Company policies, procedures for internal non-compliance reporting, incident data gathering, incident root-cause analyses,

procedures for external/agency reporting, proper documentation, etc. Interviews of Station Staff will be included to assess overall Title V Air Quality Operating Permit limits and requirement knowledge.

Also as part of the Environmental Compliance Management Audit, the Audit Program will be discussed with Station Staff to ensure overall, top down / bottom up understanding of the Company's Audit Program and the goals therein. Furthermore, this will stress the importance of prompt and coordinated implementation of all correction measures.

14.7 Plant Compliance Systems Audits

As described above, after the four Title V Air Quality Operating Permit Compliance Audits are performed, the internal Compliance Audit(s) will then be performed on an annual basis or as determined necessary dependent of findings. The Audit Team will consist of employees well versed with environmental Title V Air Quality Operating Permits and the associated regulations, and the compliance issues at the Station. Furthermore, team members will have an understanding of the Station equipment and operating scenarios. In addition, the Legal Department and outside counsel will assist as appropriate and necessary.

The audit format and scope will be similar for all audits (both internal and external), including; scheduling audit during times when Station Staff is available, reviewing current/outstanding action items, determining completeness, performing pre-audit meetings, performing audits (completing checklists based on site walk, document review, new regulation review, and interviews), performing post-audit meetings, preparing draft and final Audit Reports, and preparing draft and on-going Corrective Action Plans that includes prioritized target and final completion dates to tract and document resolution of each identified non-compliance item.

These documents will be retained in the Station and Company files as a complete and accurate record of the Title V Air Quality Operating Permit Audit Program and the continued goal of environmental compliance excellence.

14.8 Reporting to NDEP

The Company will keep the NDEP abreast of the pending four Title V Air Quality Operating Permit Compliance Audits, and as conclusion of the audits occur, will inform the NDEP of the intended corrective actions and the targeted implementation dates associated with each finding. Although the audit documents are intended for internal use, the Company will verbally share the finding results and resolutions of the four initial audits with the NDEP to demonstrate a cooperative commitment to improve environmental compliance at the Station. As sharing of this information is considered "self disclosure", it is anticipated that the NDEP will utilize the information in a positive manner, possibly mitigating potential non-compliance issues.

14.9 Audit Schedule

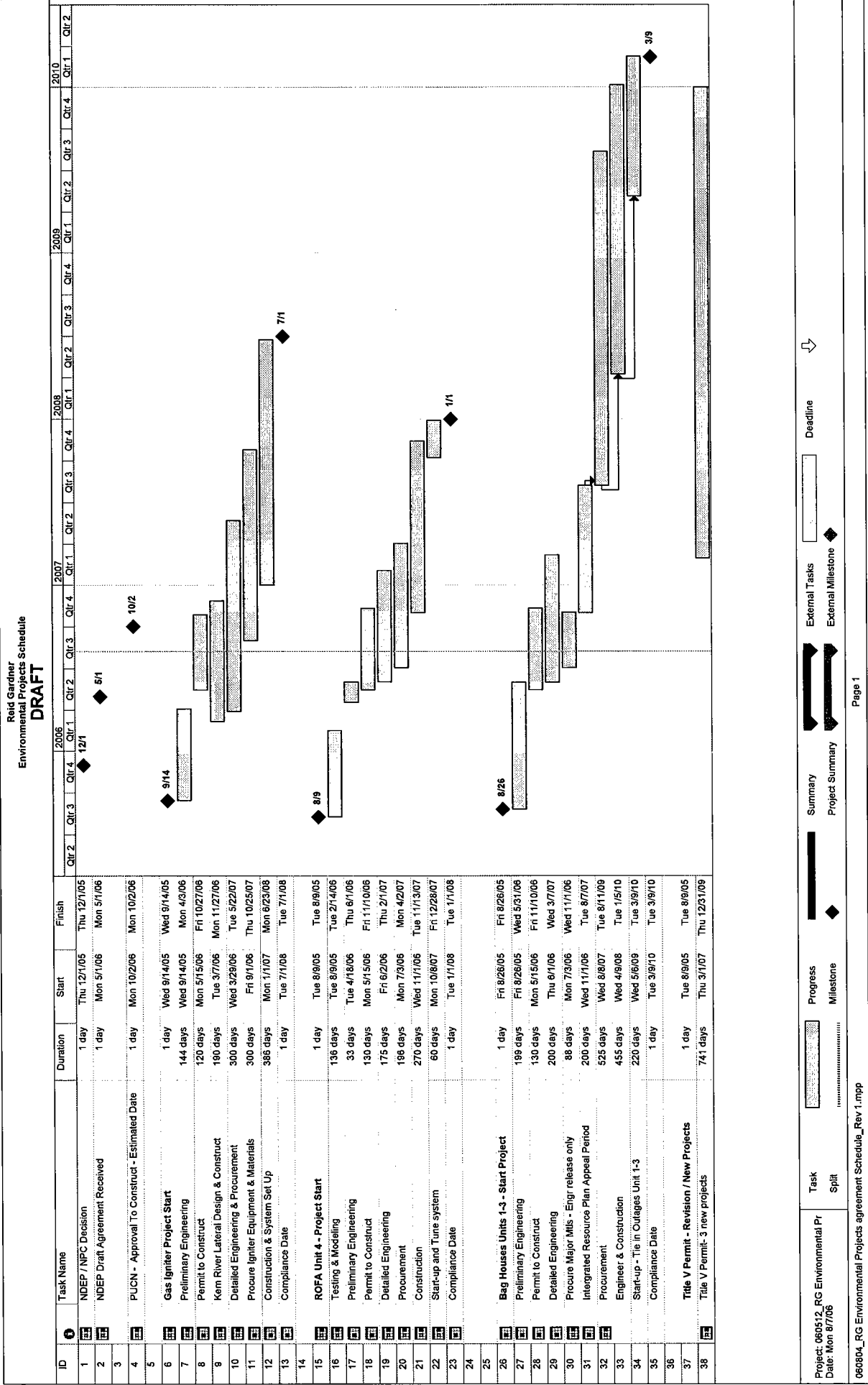
The Compliance Plan Master Schedule provided in Item 15 below sets forth the timelines for each specific audit called for in the Plan, and the ongoing audit cycle that is anticipated. As indicated above, the exact dates will be subject to adjustment, as will the scoping of each audit, in response to the priorities that emerge as the Compliance Plan is implemented.

Compliance Plan Master Schedule

Action	Completed by	Status
Organization & Staffing Changes		
Move in-plant env specialists under ESD	5/05	Complete
Personnel changes & new assignments	2/14/06	Complete
Increase env staffing & eng'rg support at plant	5/1/06	Complete
Make new RO & DR designations	2/20/06	Complete
Expert Compliance Support		
In-plant env compliance assistance	Ongoing	Begun 6/05
CEMS/COMS & software	On-going	Begun 2/05
Engineering & project management	On-going	Begun 10/04
Legal support	On-going	Begun 11/04
Technical permitting	8/06	Begun 12/04
Compliance Testing	On-going	In-place; begun in 2001
Procedures & training	9/30/06	Begun 2/05
Compliance Auditing*		
MRR Audit	9/07	Reviewing contractor Bids
CEMS/COMS Audit	12/07	Reviewing contractor Bids
Emissions Audit	3/08	Reviewing contractor Bids
Plant Compliance Systems Audit (Internal)	6/08	
Plant Systems & Automation		
Coal sampling systems	4/05	Complete
Smart Sootblowers	11/06	Complete
PI System	8/05	Complete
Time delays & logic controllers to prevent burner trips	8/05	Complete
New pulverizer level controls	11/06	Unit 3 complete; install 1&2 in 2006.
Adjust sootblow pressure, frequency & sequence	On-going	Ongoing, Begun 10/04
Adjust venturi pressure & recycle flow rates	5/05	Complete
New startup and shutdown procedures	On-going	Ongoing, Begun 10/04
Pollution Control Upgrade Projects		
	See "Schedule of Pollution Control Upgrade Projects"	


* Dates provided are based on assumption that consent decree is enforceable by April 1, 2007.

Schedule of Pollution Control Upgrade Projects



Appendix A

Example of Title V Permit Procedure – Draft Sample

 Nevada Power.	STANDARD ENVIRONMENTAL PROCEDURE	Reid Gardner Generating Station
REGULATORY GUIDANCE: NAC 445B.3405 (NAC 445B.316)	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	PROCEDURE NO. SEP RG XXX

1.0 SUMMARY

This procedure was developed to comply with the Nevada Administrative Code (NAC) 445B.316 and the requirements of the Class I Air Quality Operating Permit No. AP4911-0897 for the Reid Gardner Station Power Plant, Emissions Units S2.010 (Loading of Coal Silos for Units #1-3) and PF1.003 (Unloading of Coal Silos for Units #1-3).

This procedure addresses the daily monitoring, recordkeeping, compliance, and reporting requirements for these emissions units.


2.0 AIR POLLUTION EQUIPMENT

Emissions from each silo in emissions unit S2.010 (loading) must be ducted to silo vent fabric filters with 100% capture efficiency. An enclosure must be used to control emissions during unloading (PF1.003). Loading activities must take place in a fully-enclosed (tripper-room) building.

3.0 EMISSION LIMITS

Parameter	Emission Unit	Limit	Regulatory Citation
Particulate Matter (PM)	S2.010	≤ 90.06 pounds/hour	SIP 445.732
Particulate Matter (PM)	PF1.003	≤ 55.63 pounds/hour	SIP 445.732
Particulate Matter (< 10 µm)(PM ₁₀)	S2.010	≤ 90.06 pound/hour	NAC 445B.22033
Particulate Matter (< 10 µm)(PM ₁₀)	PF1.003	≤ 55.63 pounds/hour	NAC 445B.22033
PM and PM ₁₀ combined	S2.010 PF1.003	≤ 0.2 pounds/hour or ≤ 0.1 tons/year	NAC 445B.305
Opacity	S2.010 PF1.003	< 20 percent for more than 3 aggregated minutes in any 1 hour	SIP 445.721
Opacity	S2.010 PF1.003	< 20 percent	NAC 445B.22017 40 CFR 60.252(c)

<i>Effective Date</i>	09/01/2005	<i>Revision No</i>	0
<i>Procedure Name</i>	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	<i>Revision Date</i>	8/29/2005
<i>Owner</i>	ECC	<i>File Name</i>	SEP RG XXX-Daily-Coal Storage U1-3-r0.doc
<i>References</i>			

 Nevada Power.	STANDARD ENVIRONMENTAL PROCEDURE	Reid Gardner Generating Station
REGULATORY GUIDANCE: NAC 445B.3405 (NAC 445B.316)	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	PROCEDURE NO. SEP RG XXX

4.0 OPERATING PARAMETERS

S2.010 Maximum allowable coal loading throughput =1,650 tons per hour


PF1.003 Maximum allowable coal unloading throughput =152.8 tons per hour

5.0 MONITORING, RECORDKEEPING, COMPLIANCE, AND REPORTING

5.1 Daily Monitoring and Recordkeeping Procedure


Step	Location	Description	Initial Complete
NOTE: The location column specifies where the step is performed. A "C" indicates that the step is performed in the control room; an "L" indicates that the step is performed locally and an "LP" indicates that the step is performed from a local panel.			
1	C	Monitor coal throughput during the loading the coal silos for Units #1-3 (S2.010) on a daily basis.	
2	C	Monitor hours of operation during the loading the coal silos for Units #1-3 (S2.010) on a daily basis.	
3	C	Record the daily coal throughput for coal loading into the coal silos for Units #1-3 (S2.010) and the corresponding calendar date on a daily basis in the operating log for S2.010.	
4	C	Record the daily hours of operation for coal loading into the coal silos for Units #1-3 (S2.010) and the corresponding calendar date on a daily basis in the operating log for S2.010.	
5	C	Calculate the average daily coal throughput for S2.010 on a daily basis: $\text{Average Coal Throughput} = \frac{\text{Daily Coal Throughput}}{\text{Daily Hours of Operation}} =$ $\frac{\text{tons of coal}}{\text{hours of operation}} = \frac{\text{tons of coal}}{\text{hour}}$	

<i>Effective Date</i>	09/01/2005	<i>Revision No</i>	0
<i>Procedure Name</i>	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	<i>Revision Date</i>	8/29/2005
<i>Owner</i>	ECC	<i>File Name</i>	SEP RG XXX-Daily-Coal Storage U1-3-r0.doc
<i>References</i>			

 Nevada Power.	STANDARD ENVIRONMENTAL PROCEDURE	Reid Gardner Generating Station
REGULATORY GUIDANCE: NAC 445B.3405 (NAC 445B.316)	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	PROCEDURE NO. SEP RG XXX

Step	Location	Description	Initial Complete
6	C	Record the average daily coal throughput for coal loading into the coal silos for Units #1-3 (S2.010) and the corresponding calendar date on a daily basis in the operating log for S2.010.	
7	C	Monitor coal throughput during the unloading of the coal silos for Units #1-3 (PF1.003) on a daily basis.	
8	C	Monitor hours of operation during the unloading of the coal silos for Units #1-3 (PF1.003) on a daily basis.	
9	C	Record the daily coal throughput for coal unloading from the coal silos for Units #1-3 (PF1.003) and the corresponding calendar date on a daily basis in the operating log for PF1.003.	
10	C	Record the daily hours of operation for coal unloading from the coal silos for Units #1-3 (PF1.003) and the corresponding calendar date on a daily basis in the operating log for PF1.003.	
11	C	Calculate the average daily coal throughput for PF1.003 on a daily basis: $\text{Average Coal Throughput} = \frac{\text{Daily Coal Throughput}}{\text{Daily Hours of Operation}} =$ $\frac{\text{tons of coal}}{\text{hours of operation}} = \frac{\text{tons of coal}}{\text{hour}}$	
12	C	Record the average daily coal throughput for coal unloading from the coal silos for Units #1-3 (PF1.003) and the corresponding calendar date on a daily basis in the operating log for PF1.003.	

Effective Date	09/01/2005	Revision No	0
Procedure Name	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	Revision Date	8/29/2005
Owner	ECC	File Name	SEP RG XXX-Daily-Coal Storage U1-3-r0.doc
References			

 Nevada Power.	STANDARD ENVIRONMENTAL PROCEDURE	Reid Gardner Generating Station
REGULATORY GUIDANCE: NAC 445B.3405 (NAC 445B.316)	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	PROCEDURE NO. SEP RG XXX

5.2 Reporting

Report any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase of emissions above the allowable emissions limit stated in Section VIII of the PSD Permit issued 1/3/80 must be reported to the Plant Superintendent and the Manager of Environmental Services immediately.

Manager of Environmental Services..... 702-367-5767

The Manager of Environmental Services will notify the U.S. EPA's Regional Administrator of the failure within 48 hours of occurrence.

U.S. EPA Region IX 24-Hour Environmental Emergencies..... 800-300-2193

The Manager of Environmental Services will notify the U.S. EPA's Regional Administrator of the failure in writing within 15 days of occurrence.

U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105


The notification will include:

- A description of the malfunctioning equipment or abnormal operation
- Date of the initial failure
- Period of increased emissions due to failure
- Estimated emissions in excess of those allowed under Section VII
- Methods used to restore normal operations

5.3 Additional Requirements

Initial compliance with the New Source Performance Standards (NSPS) Subpart Y opacity limit should have been demonstrated within 180 days of the permit issuance (October 19, 2005). An Initial Opacity Compliance Demonstration (IOCD) should have been completed for S2.010 in accordance with 40 CFR Part 60.11; and 40 CFR 60,

<i>Effective Date:</i>	09/01/2005	<i>Revision No</i>	0 --
<i>Procedure Name:</i>	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	<i>Revision Date</i>	8/29/2005
<i>Owner:</i>	ECC	<i>File Name</i>	SEP RG XXX-Daily-Coal Storage U1-3-r0.doc
<i>References</i>			

 Nevada Power.	STANDARD ENVIRONMENTAL PROCEDURE	Reid Gardner Generating Station
REGULATORY GUIDANCE: NAC 445B.3405 (NAC 445B.316)	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	PROCEDURE NO. SEP RG XXX

Appendix A, Method 9. The records of this IOCD must be included in the operating log for S2.010.

<i>Effective Date</i>	09/01/2005	<i>Revision No</i>	0
<i>Procedure Name</i>	Daily Monitoring and Recordkeeping – Units #1-3 Coal Storage Silos	<i>Revision Date</i>	8/29/2005
<i>Owner</i>	ECC	<i>File Name</i>	SEP RG XXX-Daily-Coal Storage U1-3-r0 doc
<i>References</i>			

Preliminary Layout for New Baghouses for Units 1-3



Appendix c

Description of ESC WebView Emissions Tracking

NOTICE: THE AIR QUALITY DATA DISPLAYED ON THIS WEBSITE IS PRELIMINARY AND HAS NOT BEEN REVIEWED FOR QUALITY ASSURANCE.
THE DATA IS NOT OFFICIAL AND IS PROVIDED FOR INFORMATION ONLY.

REID GARDNER CEMS

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	PERCENT	AVERAGE FLAGS LEGEND
OPACITY (006M)	7.2	10.1	10.3	3.2	PERCENT	FLAG DESCRIPTION
O2P60 (001H)	8.2 B>	7.9 B>	10.3 B>	7.9 B>	PERCENT	> VALID AVERAGE
NOXP60 (001H)	159.6 B>	186.9 B>	129.6 B>	145.9 B>	PERCENT	< INVALID AVERAGE
NOX#MM60 (001H)	0.308 B>	0.351 B>	0.3 B>	0.274	LB/MMBTU	F BOILER OFF-LINE ENTIRE AVG
NOX#MM60 (003H)	-999	-999	0.306	na	LB/MMBTU	P* BOILER OFF-LINE PARTIAL AVG
NOX#MM60 (001D)	0.305	0.394	0.305	0.265	LB/MMBTU	B BAD STATUS
NOX#MM60 (030D)	na	na	na	0.311	LB/MMBTU	C CALIBRATION
NOX#MM60 (365D)	0.374	0.396	0.327			M MAINTENANCE
SO2P60 (001H)	6.9 B>X	2.5 B>X	6.8 B>X	42.9 B>	PERCENT	T OUT OF CONTROL
SO2#/MM (001H)	0.024 B>X	0.008 B>X	0.022 B>X	0.115 B>	LB/MMBTU	P POWER FAILURE
SO2#/MM (003H)	0.014	0.007	0.021	na	LB/MMBTU	D CHANNEL DISABLED/OFF-LINE
SO2#/MM (001D)	0.017	0.012	0.034	0.101	LB/MMBTU	H HIGH-HIGH ALARM LIMIT EXCEEDED
SO2#/MM (030D)	0.017	0.023	0.042	0.099	LB/MMBTU	L LOW-LOW ALARM LIMIT EXCEEDED
S#/MM (003H)	0.007	0.004	0.011	na	LB/MMBTU	L* LOW ALARM LIMIT EXCEEDED
S#/HR (001H)	13.06	4.52	10.82	161.47	LB/MMBTU	C ANALOG OVERRANGE
SO2RMEFF (001H)	na	na	na	90.8	PERCENT	U ANALOG UNDERRANGE
SO2RMEFF (001D)	na	na	na	91.1	PERCENT	A ARITHMETIC ERROR
SO2RMEFF (030D)	na	na	na	89.6	PERCENT	+ MAXIMUM EXCEEDED
PM#/MM (001H)	0.043	0.04	0.044	0.016	LB/MMBTU	- MINIMUM EXCEEDED
PM10#/MM (001H)	0.043	0.04	0.044	0.016	LB/MMBTU	P RATE OF CHANGE EXCEEDED
FUELHEAT (001H)	1089	1131	934	2808	TONS/HR	V COAL VALVE / FAN STATUS
COALHEAT (001H)	1084	1131	934	2808	TONS/HR	W WATER ALARM
COALFLOW (001H)	43	45	33	112	TONS/HR	X SO2 IN LOW RANGE
OILFLOW (001H)	0	0	0	0	TONS/HR	Y SO2 IN HIGH RANGE
LOAD (001H)	111	111	92	276	MINUTES	Z MAINTENANCE REQUIRED
UNITON (001H)	60	60	60	60	PERCENT	F* FLOOR LIMIT APPLIED
OPHRS (001D)	0	0	0	0	PERCENT	C* CEILING LIMIT EXCEEDED

* DENOTES LOWER CASE

TABLE COLOR LEGEND

NON PERMIT

PERMIT LIMIT APPLIES

PERMIT SUMMARY (RG1 & RG2)

PARAMETER	INTERVAL	OPERATOR	LIMIT
OPACITY	6 MIN	>=	20
NOX#MM60	365 D	>	0.46
SO2#/MM	3 HR	>	0.55
S#/MM	3 HR	>	0.275
S#/HR (RG1)*	1 HR	>	732.35
S#/HR (RG2)*	1 HR	>	735.52
PM#/MM	1 HR	>	0.2
PM10#/MM	1 HR	>	0.2
FUELHEAT	1 HR	>	1215

* VARIABLE LIMIT

PERMIT SUMMARY (RG3)

PARAMETER	INTERVAL	OPERATOR	LIMIT
OPACITY	6 MIN	>=	20 ST
OPACITY	6 MIN	>=	27 EXC
NOX#MM60	3 HR	>	0.7
SO2#/MM	1 HR	>	1.2
SO2#/MM	3 HR	>	0.55
S#/MM	3 HR	>	0.275
S#/HR*	1 HR	>	737.25
PM#/MM	1 HR	>	0.1
PM10#/MM	1 HR	>	0.2
FLOWSCFH	1 HR	>	28000000
FUELHEAT	1 HR	>	1237

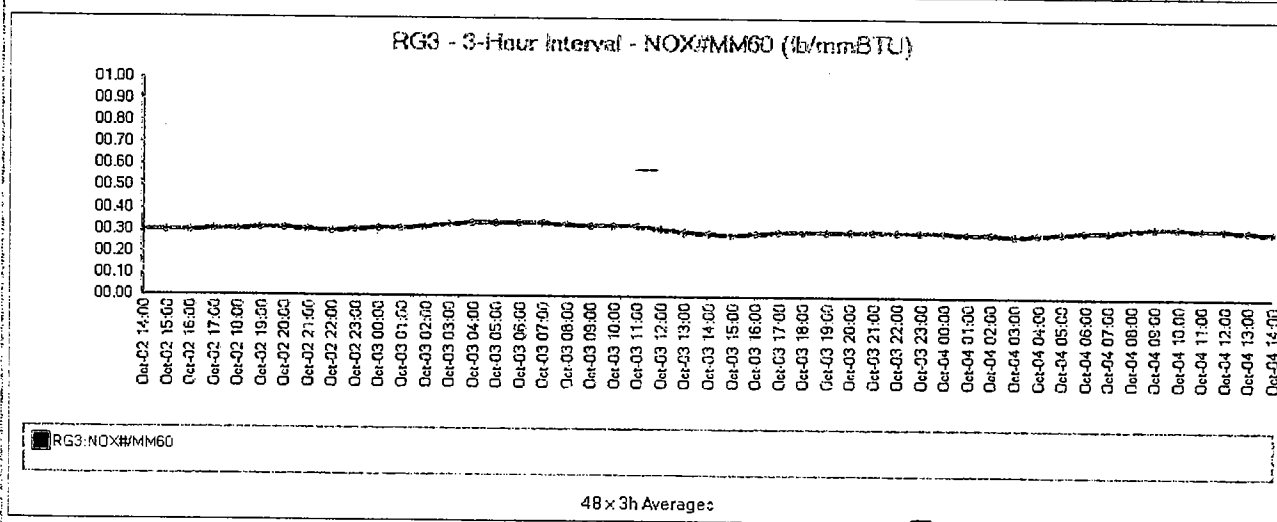
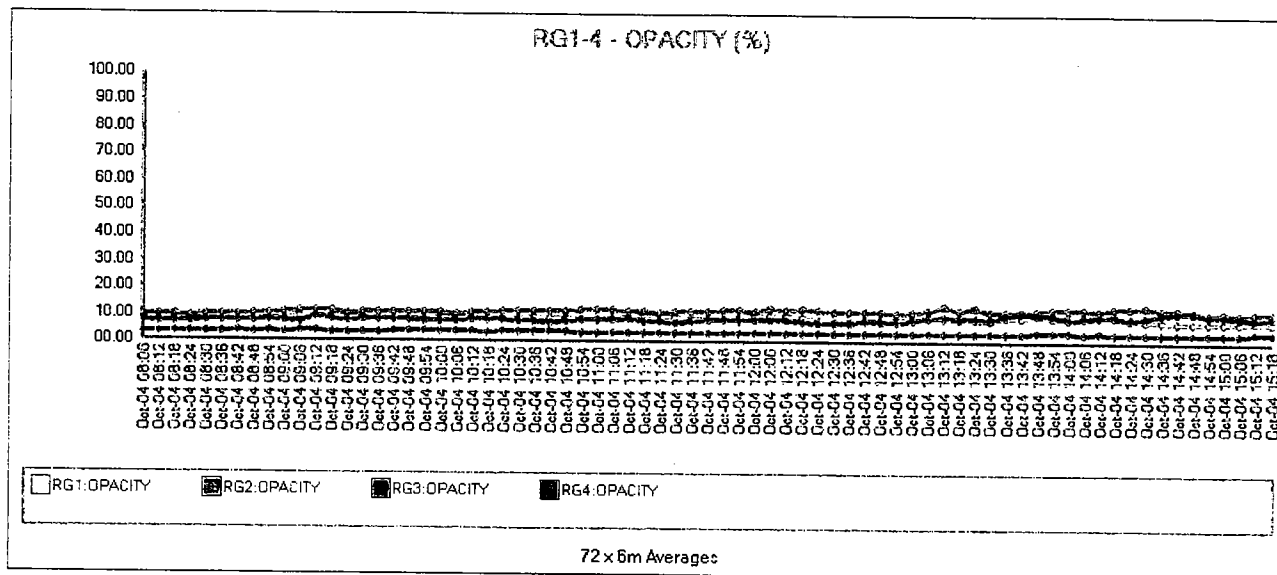
* VARIABLE

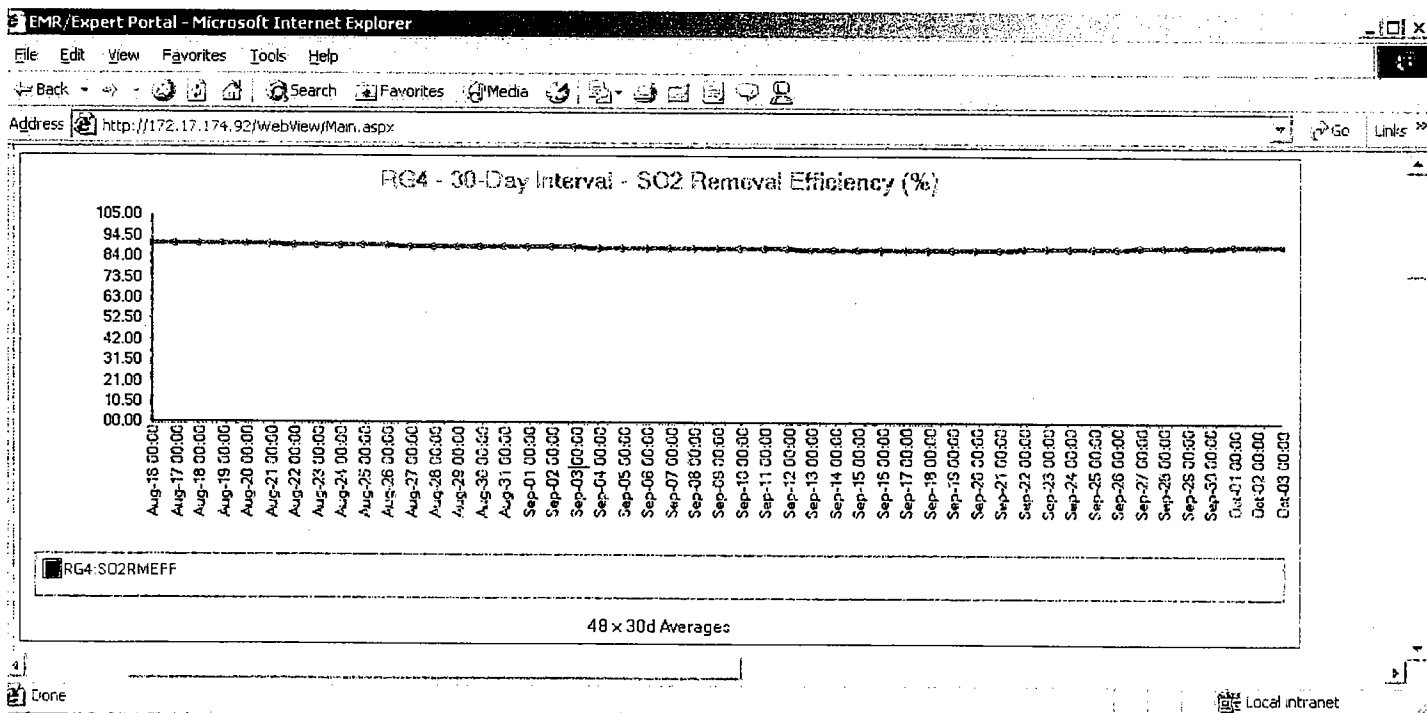
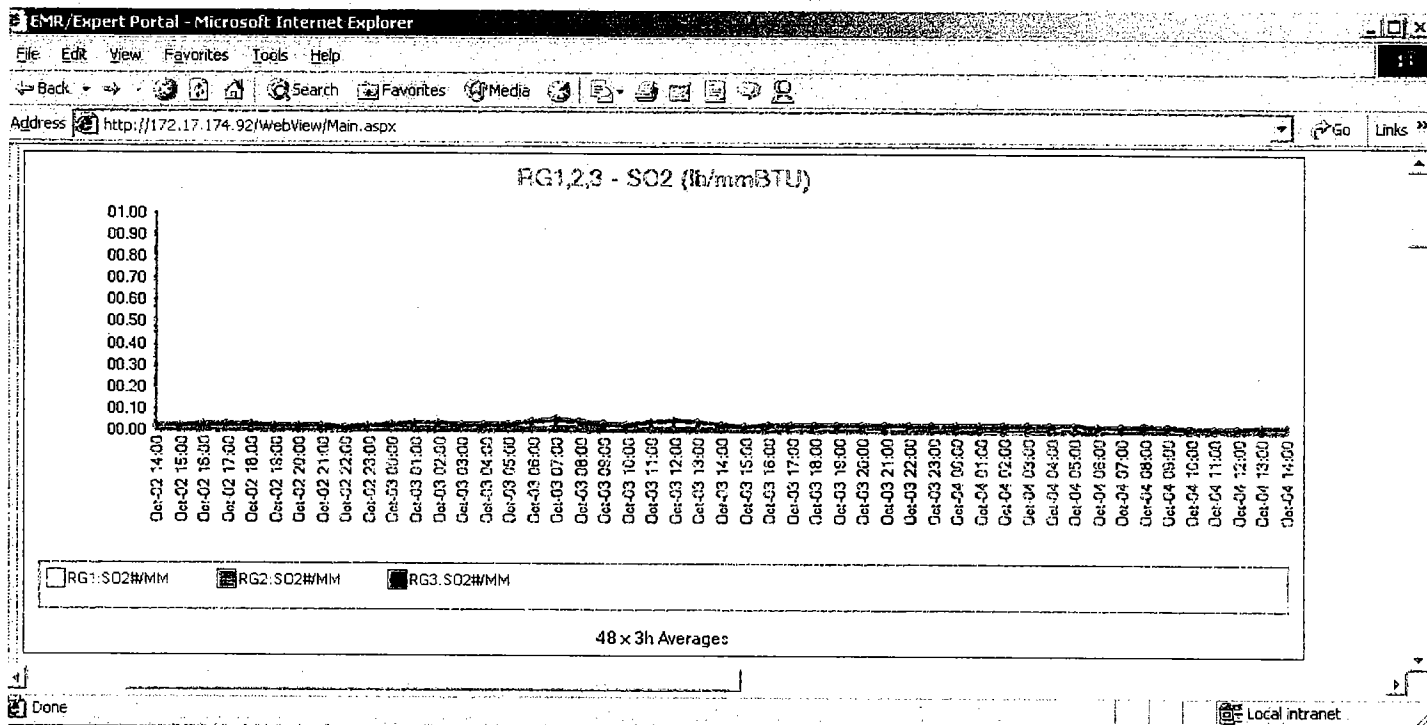
PERMIT SUMMARY (RG4)

PARAMETER	INTERVAL	OPERATOR	LIMIT
OPACITY	6 MIN	>=	20 ST
OPACITY	6 MIN	>=	27 EXC
NOX#MM60	1 HR	>	0.5
NOX#MM60	1 DAY	>	0.5
NOX#MM60	30 DAY	>	0.5
NOX#MM60	365 DAY	>	0.46
SO2#/MM	1 HR	>	1.2
SO2#/MM	1 DAY	>	0.25
SO2#/MM	30 DAY	>	0.29
S#/MM	3 HR	>	0.275
S#/HR*	1 HR	>	1775.63
SO2RMEFF	1 HR	<	85
SO2RMEFF	1 DAY	<	85

Done

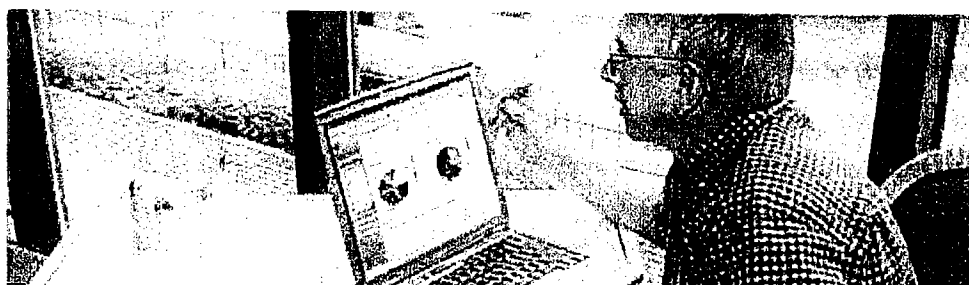
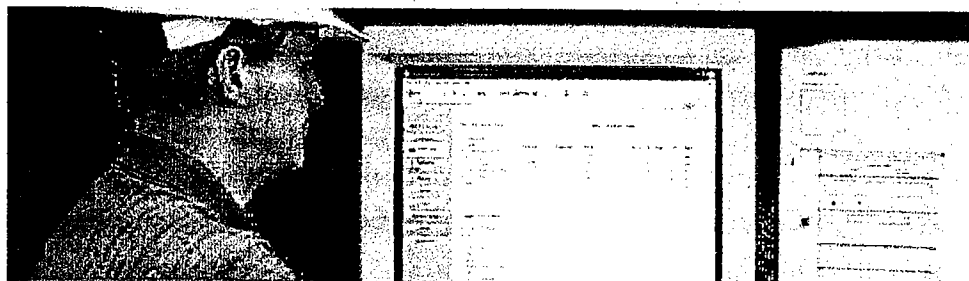
NOTICE: THE AIR QUALITY DATA DISPLAYED ON THIS WEBPAGE IS PRELIMINARY AND HAS NOT BEEN REVIEWED FOR QUALITY ASSURANCE. THE DATA IS NOT OFFICIAL AND IS PROVIDED FOR INFORMATION ONLY.





*Extend visibility of your plant
emissions compliance data.*

*WebView is a web browser
display for real time values,
calibration initiation,
alarm acknowledgment,
and fleetwide reporting -
all without client software!*

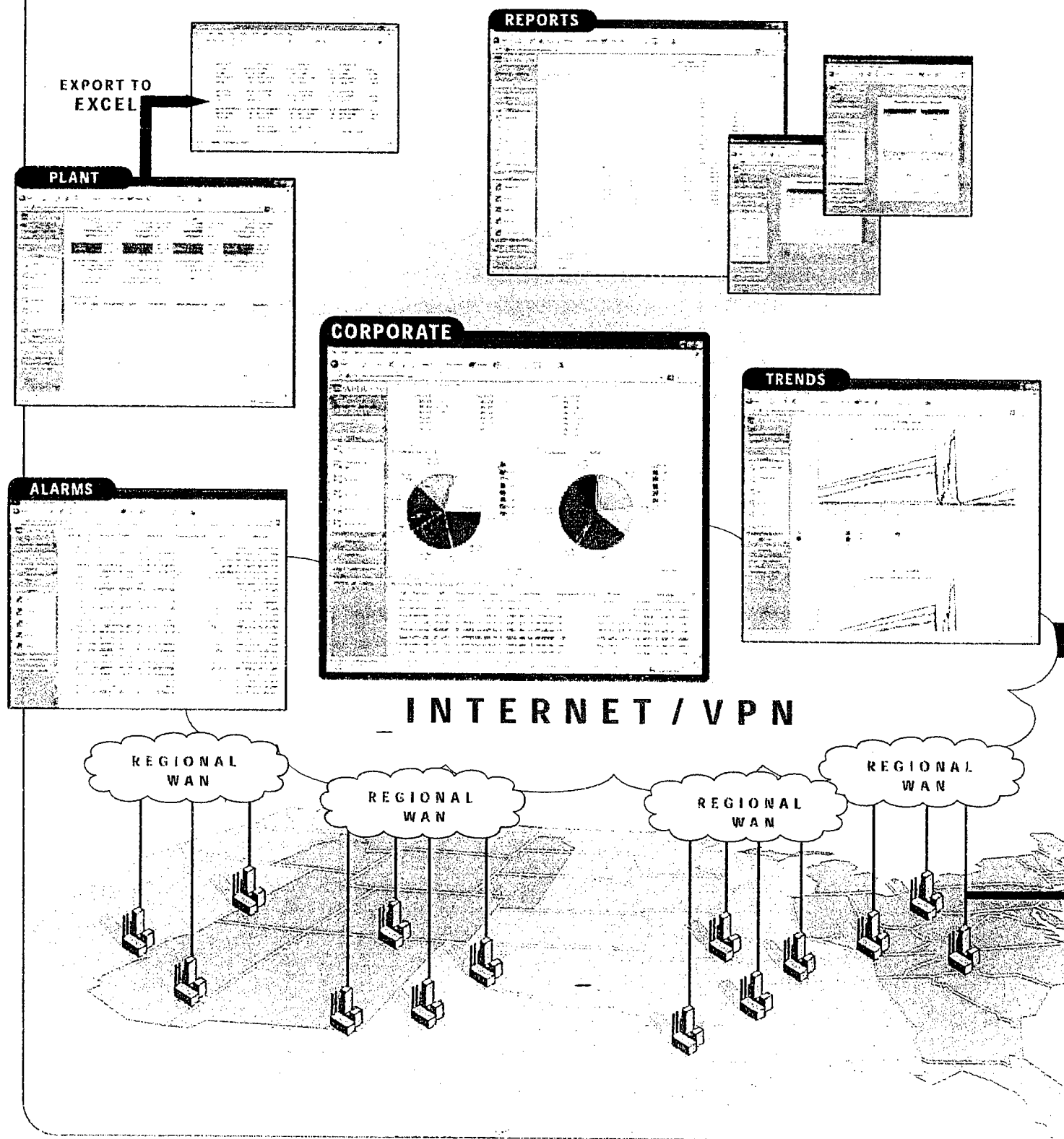


WebView

EMR & EXPERT BROWSER INTERFACE

*Optional software module for
E-DAS EMR for Windows® and Expert for UNIX*

WebView brings fleet compliance visibility into a web browser
Use your Internet/VPN for alarm acknowledgment, calibration



environment - all without client software!
initiation, fleetwide reporting and more...



**Distribute plant emissions
and compliance information
anywhere - without the
communication fuss!**

- No client software interface or installation required!
- Support for multiple release levels of EMR and Expert simultaneously!
- Inform decisionmakers via any HTML and common email protocols with the information they require!

Information for IMMEDIATE response!

- Generate EMR and Expert reports from one menu
- Access data via Internet from any computer with web browser
- Configurable Internet Access to popular sites



Information you can see in REAL TIME

- Span multiple time zones
- Enterprise Totals and Averages
- Comparative displays of your emissions sources
- Acknowledge alarms - fleetwide!



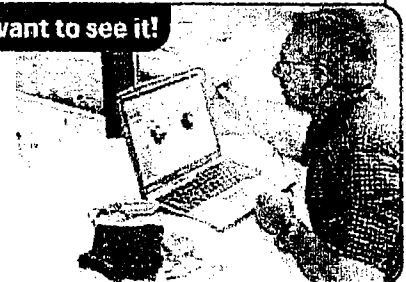
Information the WAY you want to see it!

- Configurable Menus
- Configurable Permissions and Security
- Configurable displays with data from multiple emissions sources.



Information WHEREVER you want to see it!

- Remote plant locations, corporate offices, and off-site via Wi-Fi
- Airport internet kiosks
- Home office or Internet capable remote destinations



EMISSIONS COMPLIANCE INFORMATION

Access emissions data

- Model 8832, 7560 and DCM932 HTML interface
- View and operate Model 8832, 7560 and DCM932 PLC modules



WebView for EMR & Expert

Server System Requirements

Operating System	Web Connections	Time Synchronization
Windows® 2000 Pro	10	The EMR/Expert servers and the web server must be time synchronized with each other
Windows® XP Pro	10	
Windows® 2000 Server	Unlimited	
Windows® 2003 Server	Unlimited	
Database	Storage	Supporting Software
None. No data stored locally.	< 50Mb	Microsoft Internet Information Services (IIS) NET Framework

Bandwidth

WebView has a very thin connection to web clients and the EMR servers with very low bandwidth needs

Web Client Requirements

Web clients include any device that supports a recent version of Microsoft® Internet Explorer® with JavaScript® enabled and port 80 open both ways between it and the web server.

Internet Access

Gaining Internet access would require that your IS group make the web server accessible to the Internet. This typically involves mapping a domain or routable IP address to the web server and making sure that firewall has Port 80 open in both directions. You may also use VPN access to your WAN or LAN to access WebView by Internet.

WARRANTY

Sixty (60) day return-to factory warranty.

Specifications subject to change without notice

Software Features

- ☐ **Configurable Menus**
 - by individual,
 - by group,
 - by function,
 - by organization, etc...
- ☐ **Configurable Permissions and Security**
 - within each menu,
 - for each user and
 - at each server level, etc.
- ☐ **EMR and Expert Reports Display**
 - Configurable displays with data from one or many of your emissions sources.
 - Tabular Displays
 - Bar Charts
 - Pie Charts
 - Realtime Trends
 - Historical Trends
 - Alarm Acknowledgement Grids, etc.

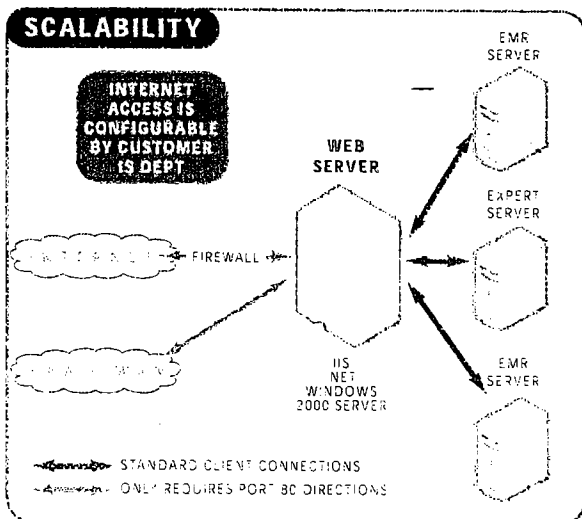
Live Online Demo

Contact ESC Sales at 865 688-7900 to schedule a live online demonstration of WebView. Call **Jesse Massengill** at **865 688-7900 x1398**, or via email at jmassengill@envirosys.com, and discover how ESC can increase compliance visibility for your entire power generation fleet!



ESC is an international, technology-based provider of hardware, software, and services for environmental emissions monitoring in electric power production, ambient air quality monitoring for state/local agencies, and environmental and performance testing.

For further information, contact **ESC Sales** from 8:30am to 5:30pm Eastern Time at **865/688-7900**. Or visit the ESC website at www.envirosys.com. You may also email your system requirements to us at escsales@envirosys.com



Environmental Systems Corporation

200 Tech Center Drive
Knoxville TN 37912

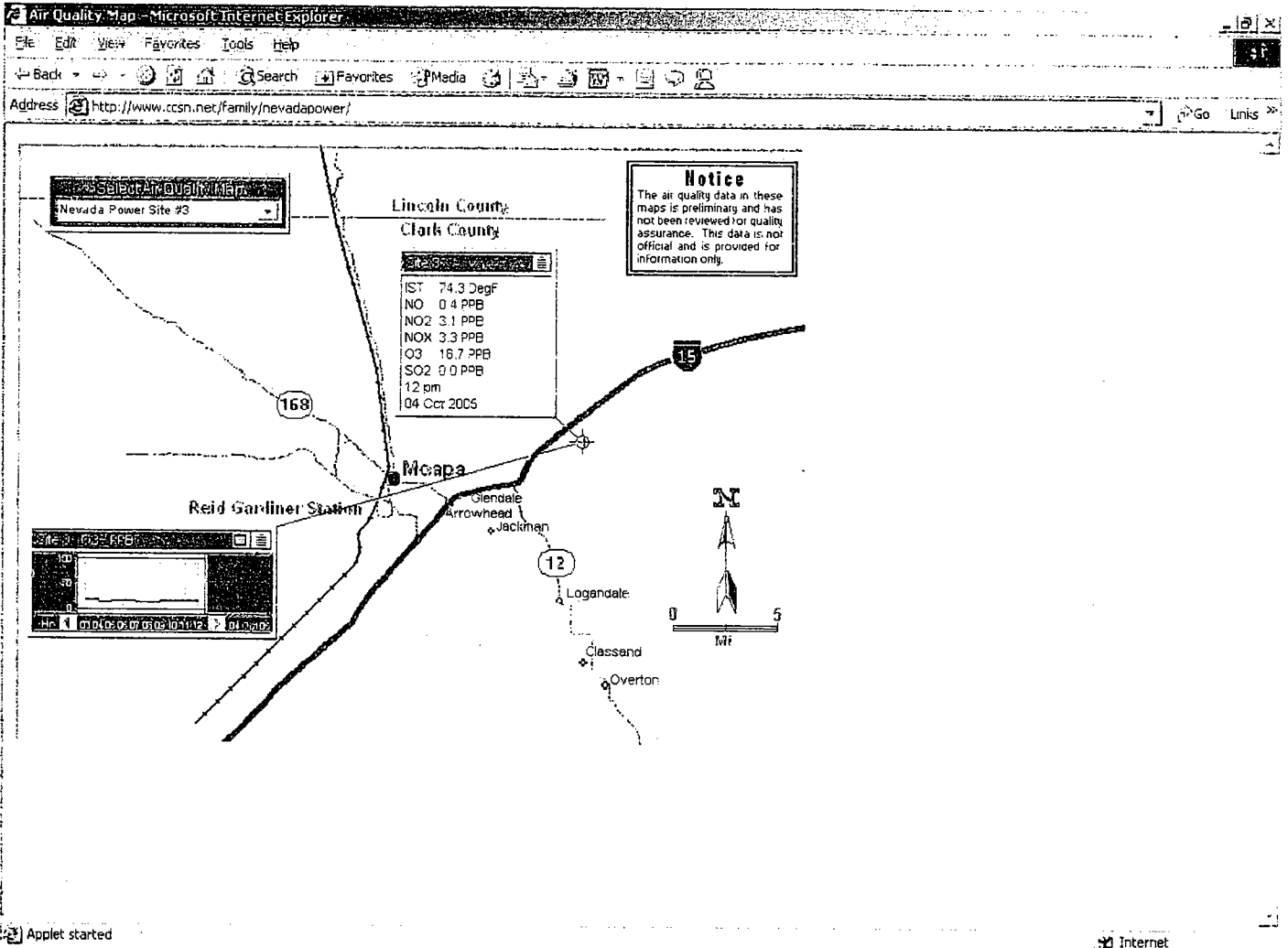
865 688-7900 phone

865 687-8977 fax

escsales@envirosys.com email

Appendix D

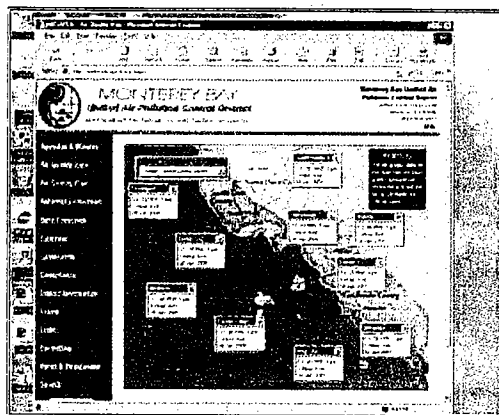
Description of EMC AIRNow AAQ Mapping



EMC Air Quality Map ®

Web Publishing Software

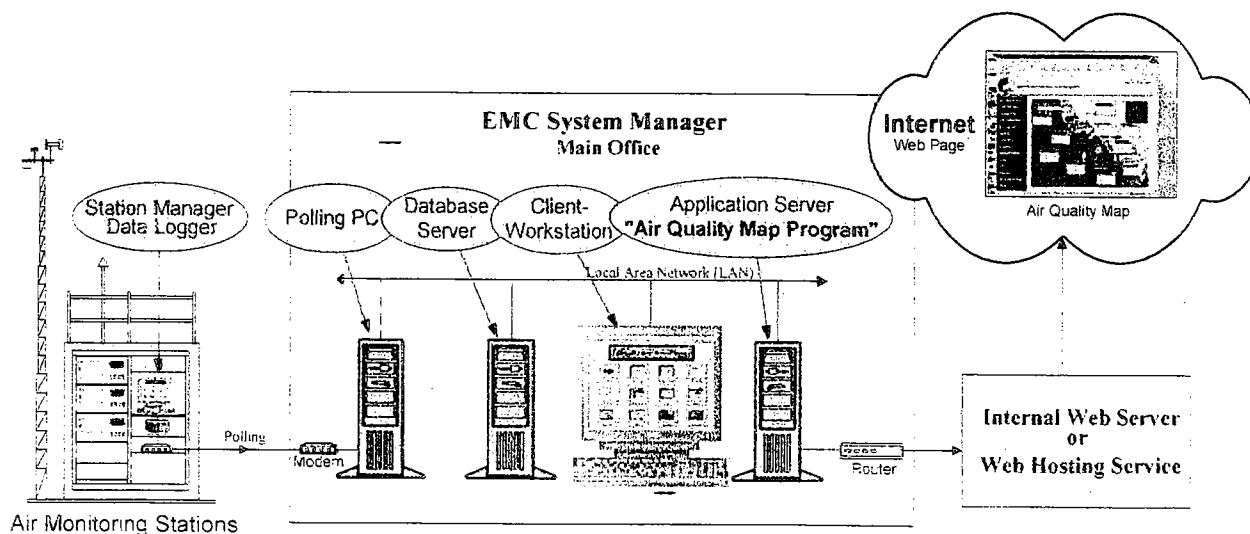
Publishes Near-Real-Time Ambient Air Quality Data to the Internet



Monterey Bay Unified Air Pollution Control District (MBUAPCD) Web Site

Key Features

- Data displayed in Data Boxes, Bargraphs, Strip Charts, Isopleths, Wind Vectors, or Roses
- Data is updated at 1-Hour intervals on the Internet
- Data is in Engineering Units or Air Quality Index (AQI)
- Air Quality Maps are dynamic and interactive - not static Web pages
- Air Quality Maps operate on the Internet and on a users LAN or WAN network
- Custom background maps can be drawn with Microsoft Paint, Corel Draw, Photoshop, etc



EMC Environmental Monitoring Company, Inc.

183 Prado Rd., San Luis Obispo, CA 93401 USA

Telephone: (805) 544-2037 • (800) 597-2037 (US toll free) • Fax: (805) 544-1824

Email: emc@emcslo.com • Web Site: www.emcslo.com

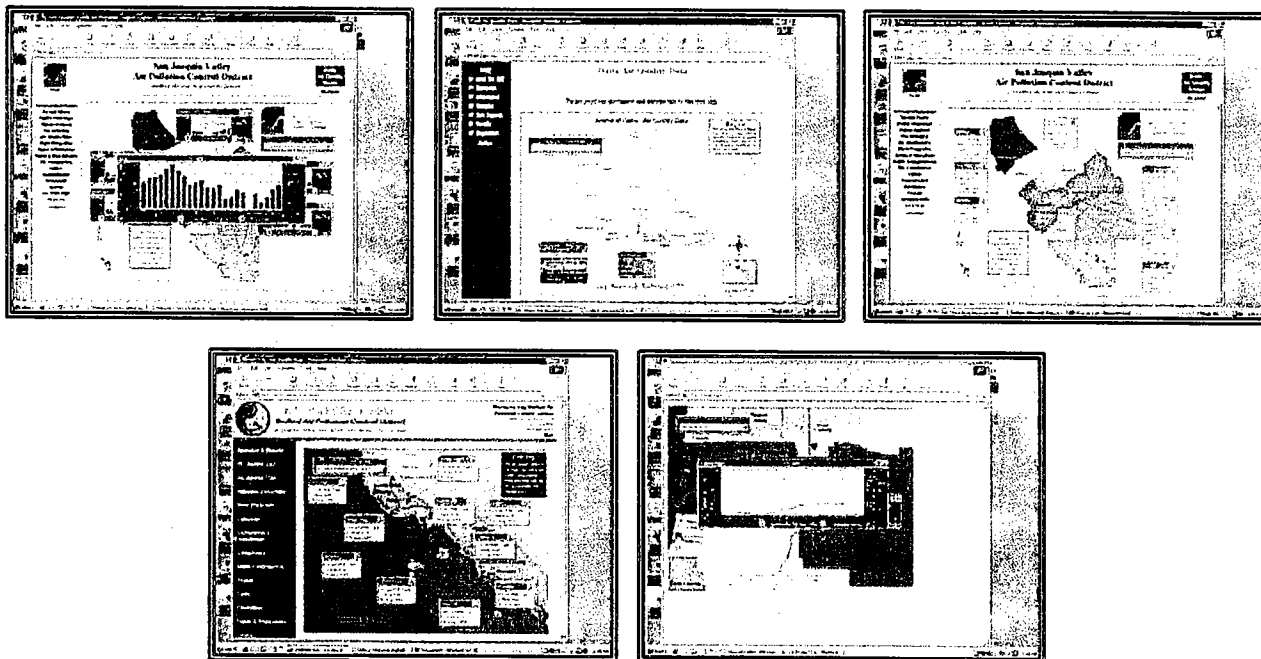


EMC Air Quality Map®

Specifications

- **Application Server PC:** Intel Pentium, 256 MB RAM, 20 GB Hard Disk, Windows 2000, XP
- **Database Server PC:** Intel Pentium, 2 GHz, 512 MB RAM, 40-80 GB Hard Disk, Windows 2000/2003
- **Polling PC:** Intel Pentium PC, 256 MB RAM, Windows 2000, XP
- **Web Server Location:** Located Internally at agency or outside Web Hosting Service
- **Web Server Requirements:** 50-100 MB storage space and FTP services
- **Background Maps:** Custom maps drawn by EMC or agency staff using MS Paint, Corel, or Photoshop
- **Configuration Editor:** Permits System Administrator to place or move display objects on top of maps
- **Integration with System Manager:** Air Quality Map program is an EMC System Manager option
- **Operation:** Air Quality Map program displays maps on an agency LAN or WAN, and the Internet

Example Air Quality Maps



View Air Quality Maps on the Internet:

Go to www.mbuapcd.org Click on "Air Quality Data" then "Air Monitoring Data" to view live data from the Monterey Bay APCD
Go to www.valley-air.org Click on "Air Quality" then "Realtime Data" to view live data from the San Joaquin Valley APCD
Go to www.lrapa.org Click on "Daily Pollution Levels" to view live data from the Lane Regional Air Pollution Authority
Go to www.state.hi.us/doh/air-quality Click on "View On-Line Air Quality Data" to view live data from the State of Hawaii DOH

Call Factory For Further Information

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Appendix E

Description of Root Cause Program

A Root Cause Analysis (RCA) will be performed on all excess emission events with the exception of events that are found to be attributed to startup, shutdown, or the presence of uncombined water.

The RCA methodology will be based on logic principles which provide an objective method for determining the root causes of unwanted events (e.g. opacity exceedences). The end result of the analysis is (1) a model which includes all of the necessary actions and existing conditions that contributed to the unwanted event and (2) a list of correctable opportunities that will help prevent a repeat occurrence.

In short, the process involves:

- A. Comprising an RCA team that includes the individuals involved in the event and at least one trained facilitator.
- B. Collecting information (process data trends, operator statements, etc).
- C. Constructing the RCA model.
 - a. The model begins with the unwanted event and flows backwards in time.
 - b. Each new level in the model is added by including the events and existing conditions required to produce the subsequent event
 - c. Each chain of events in the model ends only when a correctable opportunity is reached, a non-correctable factor (something outside NPC's control) is found, or there is insufficient data to describe what happened to cause the next event in the model.

From the RCA process, the identified root causes and correctable opportunities will be included in the follow-up Excess Emissions and Deviation Report filed with the Nevada Division of Environmental Protection, Bureau of Air Pollution Control.